

AMENDMENTS TO THE CLAIMS

Claim 1 (original): A process for preparing a ketone comprising the reaction of cyclododecatriene with dinitrogen monoxide to obtain cyclododecadienone.

Claim 2 (original): A process as claimed in claim 1, wherein the dinitrogen monoxide source is at least one dinitrogen monoxide-containing offgas of at least one industrial process.

Claim 3 (original): A process as claimed in claim 2, wherein the dinitrogen monoxide source is the offgas of an adipic acid plant and/or of a dodecanedioic acid plant and/or of a hydroxylamine plant and/or of a nitric acid plant operated with the offgas of an adipic acid plant and/or of a dodecanedioic acid plant and/or of a hydroxylamine plant.

Claim 4 (currently amended): A process as claimed in ~~claim 1 any of claims 1 to 3~~, wherein cyclododecatriene is reacted with a gas mixture containing from 20 to 99.9% by weight of dinitrogen monoxide, based on the total weight of the gas mixture.

Claim 5 (currently amended): A process as claimed in ~~claim 1 any of claims 1 to 4~~, wherein the dinitrogen monoxide or the gas mixture containing dinitrogen monoxide is used in liquid form.

Claim 6 (currently amended): A process as claimed in ~~claim 1 any of claims 1 to 5~~, wherein the reaction is carried out at a temperature in the range from 140 to 350°C and a pressure in the range from 1 to 1000 bar.

Claim 7 (currently amended): A process as claimed in ~~claim 1 any of claims 1 to 6~~, wherein the reaction

has a conversion of cyclododecatriene in the range from 1 to 80% at a selectivity based on cyclododecadienone of at least 90%.

Claim 8 (currently amended): A process as claimed in ~~claim 1 any of claims 1 to 7~~, wherein the cyclododecatriene is cis,trans,trans-1,5,9-cyclododecatriene and is reacted in (ii) with dinitrogen monoxide to give cyclododeca-4,8-dienone.

Claim 9 (currently amended): A process as claimed in claim 1 any of claims 1 to 8, wherein the cyclododecadienone obtained from the reaction of cyclododecatriene with dinitrogen monoxide is hydrogenated to obtain cyclododecanone.

Claim 10 (original): A process as claimed in claim 9, wherein the hydrogenation is carried out in the presence of a hydrogenation catalyst at a temperature in the range from 0 to 250°C and a pressure in the range from 1 to 325 bar.

Claim 11 (original): A process for preparing cyclododecanone, comprising the steps (I) and (II)

- (I) reacting cyclododecatriene with dinitrogen monoxide to obtain cyclododecadienone;
- (II) hydrogenating the cyclododecadienone obtained in (I) to obtain cyclododecanone.

Claim 12 (original): A process as claimed in claim 11, wherein the dinitrogen monoxide source used is at least one offgas comprising dinitrogen monoxide from at least one industrial process.

Claim 13 (original): A process as claimed in claim 12, wherein the dinitrogen monoxide source is the offgas of an adipic acid plant and/or of a dodecanedioic acid plant and/or of a hydroxylamine plant and/or of a nitric acid plant operated with the offgas of an adipic acid plant and/or of a dodecanedioic acid plant and/or of a hydroxylamine plant.

Claim 14 (currently amended): A process as claimed in claim 11 any of claims 11 to 13, wherein cyclododecatriene is reacted with a gas mixture containing from 20 to 99.9% by weight of dinitrogen monoxide, based on the total weight of the gas mixture.

Claim 15 (currently amended): A process as claimed in claim 11 any of claims 11 to 14, wherein the dinitrogen monoxide or the gas mixture containing dinitrogen monoxide is used in liquid form.

Claim 16 (currently amended): A process as claimed in ~~claim 11 any of claims 11 to 15~~, wherein the reaction in (I) is carried out at a temperature in the range from 140 to 350°C and a pressure in the range from 1 to 1000 bar.

Claim 17 (currently amended): A process as claimed in ~~claim 11 any of claims 11 to 16~~, wherein the reaction in (I) has a conversion of cyclododecatriene in the range from 1 to 80% at a selectivity based on cyclododecadienone of at least 90%.

Claim 18 (currently amended): A process as claimed in ~~claim 11 any of claims 11 to 17~~, wherein the cyclododecatriene used is cis,trans,trans-1,5,9-cyclododecatriene and is reacted in (I) with dinitrogen monoxide to give cyclododeca-4,8-dienone.

Claim 19 (currently amended): A process as claimed in ~~claim 11 any of claims 11 to 18~~, wherein the hydrogenation in (II) is carried out in the presence of a heterogeneous hydrogenation catalyst at a temperature in the range from 0 to 250°C and a pressure in the range from 1 to 325 bar.

Claim 20 (new): A process for preparing a ketone comprising the reaction of cyclododecatriene with dinitrogen monoxide to obtain cyclododecadienone wherein the dinitrogen monoxide source is the offgas of an adipic acid plant and/or of a dodecanedioic acid plant and/or of a hydroxylamine plant and/or of a nitric acid plant operated with the offgas of an adipic acid plant and/or of a dodecanedioic acid plant and/or of a hydroxylamine plant, wherein the dinitrogen monoxide or the gas mixture containing dinitrogen monoxide is used in liquid form, and wherein the cyclododecatriene is cis,trans,trans-1,5,9-cyclododecatriene and is reacted in (ii) with dinitrogen monoxide to give cyclododeca-4,8-dienone.